

EXHIBIT O

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

| | | |
|--------------------------|---|---------------------------|
| UNITED STATES OF AMERICA |) | |
| |) | |
| v. |) | CRIMINAL NO. 03-10387-DPW |
| |) | |
| EARL CHARLEY |) | |

AFFIDAVIT HARRY LAWLESS

I, Harry Lawless, being duly sworn, hereby state as follows:

1. I am a Professor of Food Science at Cornell University. I have been retained by Leo Sorokin of the Federal Defender's Office in Boston Massachusetts to assist with this case.

2. I am an expert in the function of humans by their chemical senses including the sense of smell as well as human perception and judgment.

3. Attached for the Court's information is a copy of my curriculum vitae.

4. I have read the Indictment, police reports and transcripts of the interrogation of the four people in the Kia Optima on September 28, 2003. In addition, I have viewed the Optima, examined the two air fresheners now in the car, driven by the area of the car stop, examined the marijuana (while contained within sealed plastic evidence bag(s), and walked into the bar mentioned in the police report.

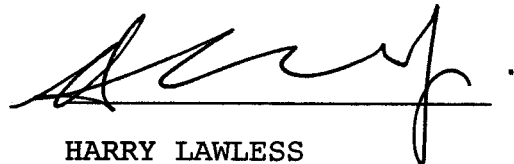
5. Based on my training and expertise, I conclude that air fresheners such as those in the Kia Optima are designed to mask

smells and are effective in doing so.

6. Based upon my training and experience, I further conclude that perception and correct identification of smells is generally less effective when 1) there are other odors present such as air fresheners, "new car" smell, or other odors emanating from people such as breath, body odor, clothing odors, fragrances and cosmetics, 2) the source of the odor is not readily visible, 3) when the sense of smell becomes adapted or fatigued by exposure to other smells.

7. Based upon my training and experience, I further conclude that the following factors affect whether an odor source is physically present: 1) diffusion of the odor into a closed space is minimized when the odor source is within a closed contained such as a plastic bag or within the closed console of a car, and 2) the odor in the car itself would tend to dissipate with people entering or leaving the car.

Signed and sworn under the pains and penalties of perjury this
28 day of May, 2004.



HARRY LAWLESS

updated 6/04

Harry Thomas Lawless, Ph.D.
3066 Iradell Road
Ithaca, New York 14850

Born: March 20, 1952
Hackensack, N.J.
email: htl1@cornell.edu
Phone: 607-255-7363 (Office)
607-273-5927 (Home)

Education:

B. A. , 1974, Yale University (Psychology), cum laude
Sc.M., 1976, Brown University (Psychology)
Ph.D., 1978, Brown University (Psychology)

Current Appointment:

1999 - present, Professor, Director of Graduate Studies, 2001-present.
1993 - 1998, Associate Professor,
1989 - 1992, Assistant Professor,
Department of Food Science, College of Agriculture and Life Sciences,
Cornell University. Member of the Graduate Field of Food Science and the
Graduate Field of Psychology.

Primary responsibilities: Teaching and research in Sensory Evaluation of Foods, sensory test methods, human perception of taste, smell and texture. Effort distribution: 50% teaching, 45% research, 5% extension.

Previous Experience:

7/84 - 12/88. Senior Scientist, Product Evaluation Department, S. C. Johnson & Son.

1/81 - 6/84. Assistant Member, Monell Chemical Senses Center.

6/80 - 12/80. Visiting Scientist, General Foods Technical Center.

6/78 - 6/80. Postdoctoral Associate, U. S. Army Natick Research and Development Command, Food Sciences Laboratory.

Honors:

Yale B.A. cum laude, 1974.
Sigma Xi, 1978.
Fulbright Research Award, Finland, 1995
William Evans Visiting Fellow, University of Otago, 1995

Fellowships:

1995: J. William Fulbright Research Award, University of Helsinki
William Evans Visiting Fellow, University of Otago
1994: U. S. Army Research Office Summer Fellow, U. S. Army Natick Research,
Development and Engineering Center
1981: Flavor Extract Manufacturer's Association (FEMA) Fellow, Monell Center.
1978 - 80: National Research Council Postdoctoral Associateship, U. S. Army Natick Research
Center
1975 - 78: National Science Foundation Graduate Fellowship.
1974 - 75: Teaching Assistantship, Brown University.

Current Teaching:

Sensory Evaluation of Foods., Advanced Concepts in Sensory Evaluation.
Flavors; Analysis and Applications, Understanding Wines.
Extension Workshops: Basic Sensory Evaluation; Advanced Sensory Evaluation.

Previous Adjunct Teaching Appointments:

Professor, University of Illinois, Department of Foods and Nutrition, 1987 - 88.
Instructor, University of Wisconsin-Parkside, Department of Psychology. 1987-88.
Assistant Professor (Research), Department of Otolaryngology, Thomas Jefferson
Medical College, 1982 - 84.
Assistant Professor, Department of Food Science, University of Delaware, 1982 - 84.
Instructor (psychology), Northeastern University, University College, 1979 - 80.

Publications: (231)

Refereed Journals: 87, Contributed Chapters: 21, Books: 2, Published Abstracts: 90,
Editorial, reviews, extension materials, & other: 31.

Recent sample publications:

Olabi, A., Lawless, H. T., Hunter, J. B., Levitsky, D. A. and Halpern, B.P. 2002. The Effect of Microgravity and Space Flight on the Chemical Senses, *Journal of Food Science*, 76, 468 - 478.

Horne, J., Hayes, J. and Lawless, H. T. 2002. Turbidity as a measure of salivary protein reactions with astringent substances. *Chemical Senses*, 27, 653 - 659.

Lawless, H. T., Rapacki, F., Horne, J. and Hayes, A. 2003. The taste of calcium and magnesium salts and anionic modifications. *Food Quality and Preference*, 14, 319 - 325.

Pelletier, C. P. and Lawless, H. T. 2003. Measuring taste acceptance in neurologically impaired adults. *Food Quality and Preference*, 14, 595 - 602.

Lawless, H. T., Bender, S., Oman, C. and Pelletier, C. 2003. Gender, age, vessel size, cup vs. straw sipping and sequence effects on sip volume. *Dysphagia*, 18, 196 - 202.

Lawless, H. T., Rapacki, F., Horne, J., Hayes, A. and Wang, G. 2003. The taste of calcium salts in mixtures with NaCl, sucrose and citric acid. *Food Quality and Preference*, 15, 83 - 89.

Pelletier, C. P. and Lawless, H. T. 2003. Effect of citric acid and citric-acid sucrose mixtures on swallowing in neurogenic oropharyngeal dysphagia. *Dysphagia*, 18, 231 - 241.

Pelletier, C. P., Lawless, H. T. and Horne, J. 2004. Sweet-sour mixture suppression in older adults. *Food Quality and Preference*, 15, 105 - 116.

Lawless, H.T., Schlake, S., Smythe, J., Lim, J., Yang, H., Chapman, K. and Bolton, B. 2004. Metallic taste and retronasal smell. *Chemical Senses* 29, 25-33.

Grants awarded as Principal Investigator:

2004-2007. Divalent salts and metallic taste. NIH/ National Institute for Deafness and Communication Disorders, \$456,000.

2003-2006. Core funding for sensory evaluation. Sensory evaluation methods research. Federal Formula Funds (Hatch, \$12,000 / annual).

1991 - 96, 1998 - 2001, with competitive renewal. Psychophysics of Astringent compounds. NIH/ National Institute for Deafness and Communication Disorders, (\$120,000, first funding period; \$213,995 second period and \$300,081, third).

1997-98 Bridging award funded through Women's Health Initiative (\$50,000).

1993 - 1996: Context, Information and Attitude Effects on Sensory Judgments of Flavor and Mouthfeel Characteristics Associated with Fat Content in Foods. Federal Formula Funds (Hatch, \$12,000 / annual).

1991 - 93: Functional Significance of Specific Anosmia. NIH/ National Institute for Deafness and Communication Disorders, Small Grants Program. \$50,269.

1990-91: Qualitative and Quantitative Evaluation of High-intensity Sweeteners and Sweetener Mixtures. Pepsico (support for Postdoctoral Associate, Dr. Nalini Ayya), \$25,000.

1989-92: Improved Methods for Sensory Evaluation of Dairy Products. Federal Formula Funds (Hatch, \$86,000, total period; included support for Liberty Hyde Bailey Fellow, M. R. Claassen).

1984 - 87: Oral Chemical Irritation, Perceptual Properties. NIH/National Institute for Communicative Disorders and Stroke. \$106,000 total requested. Grant reverted to the sponsoring institution (Monell Chemical Senses Center) when P.I. moved to industrial position.

Grants, collaborating:

1995 -97. Odor and Aroma Release from Food: Simulation and Measurement. (T. E. Acree, P.I.) USDA/ CSRS, National Research Initiative. \$257,511.

1992 - 94. Development, Stability testing, Sensory Evaluation and Bioavailability of β -carotene Fortified Yogurts (with D. Roe, P.I.). North East Dairy Foods Research Center (NEDFRC). \$86,146.

1991-93. The Importance of Diacetyl as a Flavor Component in Cottage Cheese (with R. A. Ledford, principal investigator). NEDFRC. \$76,543.

1991-93. Development of a fat free milk with the appearance and taste of milk containing 2% fat (with D. M. Barbano, principal investigator). NEDFRC. \$117, 136.

1991 - 92. Optimization and Utilization of Supercritically Modified Milk Fat Fractions (Dr. S. Rizvi, principal investigator). NEDFRC. \$90,000.

1989-90: Enzymatic Removal of Glucose from Cabbage Brine(Dr. J. B. Hunter, P.I.), N. Y. S Dept. Agriculture & Markets and National Kraut Packers Assoc.

PROFESSIONAL AFFILIATIONS

Institute of Food Technologists; Member, 1982 - present;
Professional Member 1985 - present.

Sensory Evaluation Division:

Chair, 1991-92.

Executive Committee Member-at-large, 1986 - 1989.

Newsletter Editor, 1987 - 1990.

Subcommittee on Publications, 1990 - 92.

Division Alternate Councilor, 1995 - 96.

Abstract Reviewer, Annual Meeting Program, 1996 - 97.

The Psychonomic Society, Member, 1982 - 1996.

American Society for Testing and Materials, 1980 -1991.

Committee E-18 on Sensory Evaluation of Materials and Products.

Association for Chemoreception Sciences, 1978 - present.

Society for Consumer Psychology, 1989 -1994.

Society for the Study of Ingestive Behavior, 1989 – 1996.

Sigma Xi, 1978 - present.

American Society for Enology and Viticulture, Eastern Section, 1992-1996.

American Psychological Association, 1987 - 89.

Wind Point Wine Society, President and Founder, 1984 - 89.

Philadelphia Chapter, German Wine Society, 1982 - 83. (Chapter co-founder).

GRADUATE FACULTY ACTIVITIES

Membership in Fields: Food Science, 1989 - present
Psychology, 1991 - present

SPECIAL COMMITTEE CHAIR

GRADUATE STUDENTS, CURRENT

Sharon Bender, M. S. expected May, 2004
Meryl Lubran, M.S expected May, 2004.
Heidi Yang, M. S. expected May, 2004
Juyun Lim, Ph.D. expected May, 2005.
Rocio Rodriquez-Arias, M.S. expected May 2005.

COMPLETED

M. R. Claassen, M.S. 1991
C. B. Lee, M.S. 1992
N. R. Stoer, M. S. 1992
C. Corrigan, M.S., 1993
K. Wright , M.S., 1994
N. Sheng, M.S., 1993
C. Clark, M.S., 1993
Y-F. Liu, 1994
L. Shaffer, M.S 1995
A. H. El-Gharby, M.S. 1995
P. Giasi , M. S., 1995
B-Y. Imm, Ph.D 1996
J. G. Lavin, M. S1996
Y.-T. Huang, M. S. 1997
S. V. Hernandez, M. S. 1997
J. Diamond, M. S. 1999
C.L. Hartono, M. S. 1999
T. W. Neuhaus, Ph.D. 2001
D.J. Sposato. M.S. 2000
J.E. Hayes. M. S 2001
F. Rapacki M.S. 2001
W. Speirs M.S. 2001
Cathy Pelletier, Ph.D. 2002
Alina Prokopchuk, M.S. 2004.

GRADUATE MINORS

- **Current**

Chiyoko Kobayashi, Psychology

Abigail Milewski, Nutrition

Dimitrios Lykomitros, Food Science

- **Total Completed**

| | | |
|-------------------|---------------|------------------------|
| A. Hirzel | M.S. 1991 | Food Science |
| D. Williamson | M.S. 1992 | Food Science |
| K. Shure | M.S. 1992. | Food Science |
| R. Castellano | M.P.S. 1992. | Food Science |
| D. Roberts | M.S. 1993 | Food Science |
| V. Torres | M. P. S. 1992 | Agricultural Economics |
| M. Antinone | Ph.D.1993 | Food Science |
| J. Crouch | Ph.D. 1994 | Hotel Administration |
| S. Gettner | Ph.D. 1994 | Nutrition |
| J. Hopkinson | Ph.D. 1996. | Food Science |
| Coumba Bah | M. S. 1996. | Food Science |
| Jeannine Delwiche | Ph.D. 1997. | Psychology |
| Rhonda Smith | M. S. 1998 | Food Science |
| Orlena Cheng | Ph.D. 2001 | Animal Science |
| Amar Olabi | Ph.D. 2001 | Food Science |
| Ken Chen | M.S. 2001 | Food Science |

Postdoctoral Associates:

Nalini Ayya, Ph.D. 1991-92

Ragnhild Solheim, Ph.D. 1993-94, visitor from Matforsk, Norwegian Food Institute

Foreign Interns:

Marta Casillas del Collado, Universidad de Cordoba, 1992.

Stan S. C. P. Knoop, Hanzehögeschool, Gröningen, 1993-94.

Visiting Fellows

Prof. Myung-suk Oh, Catholic Women's University, Korea, 1997 - 1998.

Prof. Richard Mason, Gatton College, University of Queensland, Australia, 1999.

Summer Intern Program

Anne Kurtz, Hamilton College, 2004.

Bryson Bolton, Alabama A&M University, 2003.

Gayle Pfaff, University of Minnesota, 2000.

April Hayes, Pennsylvania State University, 2000.

Sabbatical Leaves

1995. University of Helsinki, May - August. Fulbright Award.

Workshops/presentations:

Bergen, Norway (EU consortium)

Rome, Italy (AIR-CAT)

Helsinki (NORFA)

CSIRO, Sydney Australia, August - Sept. October-November.

University of Otago, Dunedin, New Zealand, Sept-Oct. William Evans Visiting Fellow.

Workshops/presentations:

Auckland, Palmerston North (through Massey Univ.)

Sydney (through Australian Institute of Food Science and Technology)

2002. University College Cork, Ireland.

SERVICE

Scientific:

Editorial board, Journal of Sensory Studies, 1989 - present.
Editorial board, Food Quality and Preference, 1993 - 2004
Editorial board, Chemical Senses, 1994 – 2003.

Member, External Advisory Panel for Clinical Olfactory Research Center, SUNY Health Science Center, Syracuse, 1993 – 1999.

Member, Expert Panel on Smell, Taste, Touch and Chemosensory Disorders, for the National Advisory Board, National Institute on Deafness and other Communication Disorders (update of National Strategic Research Plan, 1992-93).

Special Reviewer for the following granting agencies:

National Institutes of Health
National Science Foundation
U. S. Department of Agriculture
U.S. - Israel Binational Agricultural Research and Development Fund (BARD)
Biotechnology and Biological Sciences Research Council (U. K.)
Australian Research Council
Maine Agricultural and Forestry Experiment Station

Referee for the following journals:

Journal of Food Science
Journal of Sensory Studies
Chemical Senses
Journal of Experimental Psychology: Human Perception and Performance
Perception and Psychophysics
Physiology and Behavior
Food Technology
American Journal of Psychology
Food Quality and Preference
Italian Journal of Food Technology
Journal of the World Aquaculture Society
Cognition
Journal of Animal Science
Perceptual and Motor Skills
Journal of the Science of Food and Agriculture
Journal of Food Quality
Appetite
Journal of Texture Studies
Psychological Reports
HortScience

Special referee for ASTM, Special Technial Publications, committee E-18 on Sensory Evaluation of Materials and Products.

Institute of Food Technologists, Abstract Reviewer, Annual Meeting Program, 1996 - 99.

Outside reviewer, promotion materials, Monell Chemical Senses Center, 1999 - 2003.

University:

Co-chair, Committee on Transportation Services, 1992 - 93, member 1993 - 94.

Health Careers Evaluation Committee (student interviewing), 1994.

Ad hoc committee for promotion to Professor, 2000.

Department:

Food Science Club Advisor, 1990 - 91.

Teaching Assistant Award Committee, 1990 - 91.

Ad hoc committee on Ph.D. requirements, 1990.

Ad hoc committee on department computer networking, 1990.

Department Planning Committee, 1992.

Internship update (volunteer), 1992 - 93.

Seminar co-chair & Berger Lecture committee, 1993 - 94

Instructor for Food Science Teaching Assistant course, FS 698 (trial run).

Ad hoc committee on teaching assistant policy, 1996.

Ad hoc committee on MS/PhD change of status guidelines (authored draft)

Ad hoc committee on guidelines for sensory panel incentives (authored draft)

Department Seminar Committee, 2001

Admissions committee, Field of Food Science, 1998 - 2001.

Graduate Student Awards, 1998-99.

Acting Director of Graduate Studies, 2001.

Consultant for over 50 research projects involving sensory lab

Volunteer sensory judge:

1989 - 92. Volunteer judge/panelist for Milk Quality Improvement Program. 1990 - 91.

Volunteer wine judge (expert panel), Beverage Testing Institute, Ithaca, NY.

Community:

Music Committee, St. Paul's Methodist Church, 1992.

Enfield School PTA, 1991 - 96.

Volunteer - carpentry/construction, Ithaca Science Center, 1992.

Volunteer - Enfield school orchard project, 1994.

Discussant, local public access TV, Finnish culture program, 1994 - 96.

Volunteer - Community Food Distribution (Trumansburg), 1996 - 2000.

Boy Scout Troop 13, Trumansburg NY, Awards Committee Chair. 1996 - 2000.

Assistant Scoutmaster, 1997-2000. Merit Badge Counselor for six badges.

Summer Camp, 1997, 1998, 1999, 2000.

Elder and Session member, First Presyterian Church of Ulysses. Worship and Finance Committees. 2002-2004.

Consulting:

1989-90. Sensory Evaluation Advisory Panel, Frito-Lay Research and Development.

1987 -95. Consultant on propane odorization and propane explosion litigation.

1977 - present. Consultant to food & consumer product industries on issues relating to sensory evaluation procedures. Clients have included General Foods, Beatrice, Planters/Lifesavers, Cadbury/Schweppes, Nutrasweet, Pepsico, Curtis-Burns, Westvaco, Archway, ARA services, Sensory Spectrum, The Food Network, Ideascop, Norwich-Eaton, FMC Corporation, National Fruit Products, Brown Foreman, Ocean Spray, Unilever, Tropicana, Alcoa Memory Products, Kikkoman, Grande' Cheese, Warner Lambert, S. C. Johnson Wax, Rochester-Midland, Rich Products, General Motors, Takasago, National Starch.